UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/801,718	03/17/2004	Yuri Hiraiwa	TSM-36	1887

7590   07/21/2006

MATTINGLY, STANGER & MALUR, P.C.
SUITE 370
1800 DIAGONAL ROAD
ALEXANDRIA, VA 22314

EXAMINER
KIM, DANIEL Y

ART UNIT	PAPER NUMBER
2185	

DATE MAILED: 07/21/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

– The MAILING DATE of this communication appears on the cover sheet with the correspondence address –

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 May 2006*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *17 March 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Information Disclosure Statement

1.   The Information Disclosure Statement(s) received August 16, 2004 and July 6,

2005 are in compliance with the provisions of 37 CFR 1.97. Accordingly, the Information

Disclosure Statement(s) are being considered by the examiner.

Priority

2.   Acknowledgment is made of applicant's claim for foreign priority under 35

U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 2003-

423464, filed on December 19, 2003.

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which

papers have been placed of record in the file.

Response to Amendment

3.   This Office Action is in response to applicant's communication filed May 15, 2006

in response to the PTO Office Action mailed February 10, 2006. The applicant's

remarks and amendments to the claims and/or the specification were considered with

the results that follow.

In response to the last Office Action, claims 1-6 have been amended, and no

claims have been cancelled or added. Claims 1-6 remain pending in this application.

The rejection of claim 4 under 35 U.S.C. 112, first paragraph has been withdrawn

due to the amendment filed May 15, 2006.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-6 have been considered but are

moot in view of the new ground(s) of rejection.

The examiner acknowledges the ownership and common assignment of both the

applicant's present application and the Mimatsu reference under Hitachi, Ltd.

Upon further review, however, all the claim limitations addressed under 35

U.S.C. 103(a) as in the previous Office Action for claims 1-3 and 5-6 over Mimatsu et al

(US PGPub No. 20050010733) and Senoh (US PGPub No. 20020078178) seem to be

disclosed under Mimatsu alone.

Therefore, these claims will now be addressed under 35 U.S.C. 102(e) as

follows.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6.   Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by Mimatsu
(US PGPub No. 20050010733).

For claim 1, Mimatsu discloses a data duplication method which duplicates data
being stored in a storage subsystem connected to a computer (management
information for each disk volume is read from and written in by an external computer so
that the backup data of disk volumes can be associated with the management
information, abstract), wherein said computer includes a processor unit and a storing
unit (a memory for storing program and data and a CPU for execution of a program, par.
0039), said method comprising:

an identification information reading step which reads out from a storing unit an
identification information list in which identification information of each of a plurality of
storage media included in the storage subsystem is stored (software for controlling the
backup and restore processes manages a list or catalog of the produced backup data,
par. 0004),

a first reading step which reads out from the storing unit, a first duplication
definition information which stores the identification information with respect to each of
the plurality of storage media, and identification information of a copy destination
storage medium of each of the plurality of storage media (a backup program on the
computer orders the disk array to generate a snapshot of the data-stored disk volumes.
The computer transmits the information about the backup program and such information
as backup date and time and content identifiers pertaining to the snapshot to the disk
array. The disk array causes this information to be recorded on the storage regions

associated with the disk volumes of the snapshot. The backup program also causes this

management information to be recorded on the catalog of the backup data, par. 0012;

the disk array has the function to copy the disk volume data and also the management

information incidental to the disk volume, thus treating the data of the disk volumes and

the accompanying management information in association with each other, par. 0014),

a first comparing step which compares the identification information list read out

in the identification information reading step, and the first duplication definition

information read out in the first reading step (backup data and its management

information are stored in association with each other, par. 0118),

an addition step in which if there exists first identification information that is

stored in the identification information list but not stored in the first duplication definition

information in the first comparing step, a copy destination storage medium of a storage

medium identified by the first identification information is selected according to a

predetermined selection condition, the first identification information and the

identification information of the copy destination storage medium thus selected are

added to the first duplication definition information, and data in the storage medium

having the identification information is copied to the copy destination storage medium

thus selected, nor, (unlike the data mirror function in which data is copied is previously

selected, the snapshot function automatically assigns a volume number to a generated

snapshot. The list of snapshot volume numbers is recorded in the volume management

table in place of the copy destination volume number list. When a snapshot volume is

newly produced, an entry having an unused volume number is added to the volume

management table, and the newly added volume number is recorded in the snapshot

volume number list of the snapshot source volume, par. 0094), and

a deletion step in which if there exists second identification information that is not

stored in the identification information list but is stored in the first duplication definition

information in the first comparing step, the second identification information and

identification information of a copy destination storage medium, which is a copy

destination of a storage medium identified by the second identification information, are

deleted from the first duplication definition information (the disk array control program

refers to the volume management table, and deletes the volume information of the

specified volume number. Then, the backup server program deletes the corresponding

entries of the backup data table, par. 0082), and copying the data of the storage

medium identified by the second identification information is stopped (a preprocess is

executed as a program to order the database management program to stop the update

of data before a backup, par. 0047).

For claim 2, Mimatsu discloses there exist a plurality of said storage subsystems

connected to the computer, and a plurality of said storage subsystems which include

said copy destination storage medium (a disk array has storage regions provided to

store management information for each disk volume of backup data, and an interface is

provided through which the management information for each disk volume is read from

and written in by an external computer, abstract).

Claim 3 is rejected using the same rationale as for the rejections of claims 1 and

2 above.

For claim 4, Mimatsu discloses a data duplication method wherein said selection condition includes information which has caused an error to occur in said addition step (if there is no corresponding mount point on the port correspondence table, the program reports an error to the backup server, par. 0058; if there is no specified port address on the volume management table, the program reports an error to the client computer, par. 0059; if the program receives a failure status, it sends a report of restore error to the backup server, par. 0075).

Claim 5 is rejected using the same rationale as for the rejections of claims 1 and 2 above.

Claim 6 is rejected using the same rationale as for the rejections of claims 1 and 2 above.

Conclusion

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

Citation of Pertinent Prior Art

8.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure.

Itoh et al (US PGPub No. 20040039890), discloses recording devices having

data storage units, data allocation storage units for storing allocation information of each

stored data, and control units for writing and reading data using the allocation

information in the data allocation storage units.

Hirabayashi (US PGPub No. 20030200275), discloses a file transfer system and

method capable of making backups, which includes logical volume layers and link

information that includes copy group map information that defines a group of disks to

which data is copied.

Carpentier et al (US PGPub No. 20040220975), discloses content addressing

and content verification, in which adding a file to a database involves storing these

values in a table as a pair.

Contact Information

9.   Any inquiries concerning this action or earlier actions from the examiner should

be directed to Daniel Kim, reachable at 571-272-2742, on Mon-Fri from 8:30am-5pm. If

attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Mano Padmanabhan, is also reachable at 571-272-4210.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information from

published applications may be obtained from either Private PAIR or Public PAIR. Status

information for unpublished applications is available through Private PAIR only. For

more information about the PAIR system, see http://pair-direct.uspto.gov. All questions

regarding access to the Private PAIR system should be directed to the Electronic

Business Center (EBC), reachable at 866-217-9197.

7-13-06

MANO PADMANABHAN
SUPERVISORY PATENT EXAMINER